

To: Jaime A. Contreras[jacontreras@co.slo.ca.us]
Cc: KTUPPER@CO.SLO.CA.US[KTUPPER@CO.SLO.CA.US]
From: Vallano, Dena
Sent: Mon 9/19/2016 4:09:21 PM
Subject: RE: Purple Air Sensor Info

Thanks Jaime! I'd love to know how the testing turns out – please keep me posted. Very exciting!

Dena Vallano, PhD

U.S. EPA, Region 9

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From: Jaime A. Contreras [mailto:jacontreras@co.slo.ca.us]
Sent: Friday, September 16, 2016 3:16 PM
To: Vallano, Dena <Vallano.Dena@epa.gov>
Cc: KTUPPER@CO.SLO.CA.US
Subject: RE: Purple Air Sensor Info

Hi Dena,

Thanks for sharing the info.

Karl made a purchase of two of this sensors and they are undergoing preliminary test at our CDF

site; however, the initial results indicate noisy performance and could be due to ambient moisture or some sort of interference possibly coming from radio signal in the area (CDF is next to a Cal Fire station). The manufacturer is doing some remote tech support and giving Karl suggestions to try out hoping to resolve the issues. We were hoping to see good immediate results but life will not be interesting without challenges ☺, so these sensors will operate at CDF over the weekend but most likely be relocated to a drier environment with hope of obtaining better results or similar to AQ-SPEC.

Dena, you can see yourself the initial data at

<https://map.purpleair.org/?lat=35.04675544600038&lng=-120.58716930449009&zoom=21>

Two Purple Air monitors are located at the CDF site, if you click on either one a window will pop open showing detail info, like different particle sizes, averaging, trends, and met data.

Will keep you posted with developments.

Thanks again Dena and have a nice weekend!

Jaime

From: Vallano, Dena [<mailto:Vallano.Dena@epa.gov>]
Sent: Friday, September 16, 2016 3:01 PM
To: Jaime A. Contreras <jacontreras@co.slo.ca.us>
Subject: Purple Air Sensor Info

Jaime,

As a follow-up to our EE call a couple weeks ago, I wanted to share the AQ-SPEC results for the Purple Air sensors in case you haven't seen them yet. They performed pretty well in the preliminary field evaluations. They had close to 100% data recovery and high correlations with a GRIMM ($R^2 > .9$) and BAM ($R^2 > .78$) for $PM_{2.5}$. I believe lab testing is currently underway exposing the sensors to a wider variety of environmental conditions, so those results will hopefully be available soon.

<http://www.aqmd.gov/aq-spec/product/purpleair>

Dena

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